STATEMENT OF BASIS
FARMERS GRAIN COOPERATIVE
UPDES PERMIT NO. UT0025135
Renewal for Minor Industrial Facility

FACILITY CONTACT:

Property Owner: The Scoular Company
Attn: Jeff Caskey, Operations Manager
2727 Pennsylvania Ave
P.O. Box 9550
Ogden, Utah 84409
Telephone (801) 621-7803

Responsible Official: Brent Shaffer, President of the Board
Farmland Grain Cooperative of Idaho
15145 North 4800 West
Garland, UT 84312
Phone: (435) 279-3108

Facility Contact: Kathy M. Harris, PG
AMEC Earth and Environmental
9865 South 500 West
Salt Lake City, UT 84123
(801) 999-2023

TYPE OF FACILITY: This facility is utilized for the storage, marketing and distribution of all types of grain and grain products.

STANDARD INDUSTRIAL CLASSIFICATION (SIC) CODE: The SIC code for this facility is 2040.

DESCRIPTION OF FACILITY: The Farmland Grain Ogden Facility is responsible for storing, marketing and distributing all types of grain and grain products. The facility consists of grain storage silos, grain storage warehouse, two general shop and maintenance buildings, one laboratory, and one office building. There is a shallow ground water drain system at the facility which was installed to drain ground water from under the silos. It consists of three separate legs which drain to a central sump. Ground water gravity flows from the central sump through a concrete culvert to a treatment system after which it discharges to a storm drain system approximately one quarter mile north of the facility. The ground water drainage system intercepts a fairly large amount of shallow ground water and transports it to surface water.

From about 1973 through 1977, this facility operated a trucking division in the southern most shop/maintenance building. Four floor drains were located in this building where waste solvents (trichloroethene) were reported to have been occasionally discharged. A common 8-inch culvert pipe conveyed the drain discharge to an open ditch on the south side of the grain warehouse. The shallow ground water drainage system captures the shallow ground water contaminated with trichloroethene (TCE). The facility has the ability to pass the groundwater through a treatment system and discharge it. However, the levels of TCE in the groundwater are now low enough that the facility can meet the permit effluent limits without using the treatment system. The treatment system has not been run since 2003.

The treatment system is located in an area near the central sump. Water from the central sump and from select ground water monitoring wells (part of the Enhanced Fluid Recovery System) will be pumped to an air stripping unit. Once the water is treated it will be returned to the discharge pipe of the sump which is connected to the storm water system. The flow rate under normal, non-storm conditions is expected to be around 25 to 35 gallons per minute (gpm). The air stripper is designed to treat flows in this range. During high flow rates originating as a result of runoff it is anticipated that the ground water will be significantly diluted and not require air stripper treatment. However, the treatment system will be plumbed to allow 35 gpm to continually flow into the system while runoff waters in excess of 35 gpm will by-pass the system. In this manner the treatment system will continually operate.

The air stripper is a low profile, tray air stripper. Water will be sprayed through the top of the stripper and will flow through baffled aeration trays and will cascade over the baffled trays and flow to a holding tank at the bottom of the stripper and from there is discharged back to the sump discharge line and goes to the storm drain system.

LOCATION OF DISCHARGE: The permittee will have one discharge point known as Outfall 001. Outfall 001 is located at a latitude of 41° 13' 07" and a longitude of 112° 00' 34". Samples shall be taken from sump area. If the aeration unit is in operation, samples should be taken from a spicket on the effluent line of the aeration unit. If the unit is off line the sample should be taken from the sump itself at the discharge outlet line.

DESCRIPTION OF DISCHARGE: The discharge goes to a common storm sewer main, which discharges into an unnamed irrigation ditch tributary to Hooper Canal which is tributary to the Weber River which discharges to the Great Salt Lake. When the permit was first issued in June of 1994 the permittee installed an aeration device in the central sump which seemed to be successful in removing around 60 % of the TCE. This has worked well except at times when a large amount of sediment has entered the sump plugging the air flow. A new system has been installed as indicated above under description of facility which will be able to operate

continuously.

Over the last five years trichloroethene (TCE) never exceeded the daily maximum. All samples taken for WET testing passed. In 2006 there were 5 exceedences for (TSS). These exceedences were due to sediment filling the bottom of the sump where the samples are taken and were drawn into the samples by the sampling technique. This material is washed into this area because it also serves as a storm drain.

USE CLASSIFICATION OF RECEIVING WATER: The Hooper Canal and the Weber River in this area are classified as:

2B - protected for secondary contact recreation such as boating, wading or similar use
3C - protected for non-game fish and other aquatic life, including the necessary aquatic organisms in their food chain
3D - protected for waterfowl, shore birds and other water-oriented wildlife not included in classes 3A, 3B or 3C, including the necessary aquatic organisms in their food chain, and
4 - protected for agricultural uses including irrigation of crops and stock watering.

SUMMARY OF CHANGES FROM PREVIOUS PERMIT: Acute Whole Effluent Toxicity (WET) testing will be changed from quarterly to semi-annually and alternating between the two test species. These tests shall be alternated over two six month periods, one for each species during each year of the permit cycle as discussed further in the *Biomonitoring Requirements* section of this document.

BASIS FOR EFFLUENT LIMITS: Utah Administrative Code (UAC) R317-1-3.2 A,B & C, indicates that all persons discharging wastes from a point source into any waters-of-the-State shall provide treatment processes which will produce secondary effluent. Secondary effluent means an effluent in which the arithmetic mean of BOD and TSS shall not during any thirty (30) day period exceed 25 mg/L nor shall the arithmetic mean exceed 35 mg/L during any seven (7) day period. At all times the effluent will be required to be between a pH of 6.5 to 9.0.

An exception for TSS will be granted in the permit during runoff conditions because of the increase of solids carried into the system as a result of the increase of flow. All permit conditions apply during non-runoff periods as the purpose of the permit is to assure quality of the ground water discharging to surface drains. If during any monthly reporting period non-runoff conditions (continued runoff in the month) do not occur and a sample cannot be taken during non-runoff conditions, the TSS limit shall not apply and it shall be noted at the bottom of the discharge monitoring report that runoff was occurring all month.

Human health criteria will be applied to all Class 3 water bodies to protect for the consumption of aquatic organisms only. Over the last five years of the permit cycle TCE was limited to a thirty day average of 30 ug/L. TCE never exceeded permit limits. Break down compounds of TCE such as 1,1-dichloroethane, 1,1-dichloroethene and 1,2-dichloroethene were all monitored on a monthly basis. Based on best professional judgement (BPJ) and a memorandum (appended to this Statement of Basis) from Dr. Bill Moellmer (staff person responsible for completing wasteload analyses) the limitations for TCE shall continue to be limited to 30 ug/l as a 30 day average and 1,1 dichloroethene shall be limited to 3.2 ug/l as a 30 day average. Monitoring for 1,1-dichloroethane and 1,2-dichloroethene will be continued on a monthly basis, but no effluent limits will be established.

E. coli was not considered for inclusion in this permit because no domestic waste is involved.

STORM WATER REQUIREMENTS: According to the Standard Industrial Classification (SIC) Code for this facility, SIC 2040, Grain Mill Products, the Farmers Grain Ogden Facility is required to obtain coverage under the UPDES Multi Sector General Storm Water Permit, Sector U, Food and Kindred Products, or to have specific storm water requirements in the UPDES individual permit. Previous state inspections at the facility have shown there are no materials at the facility exposed to storm water. As a result no storm water provision will be included in this permit. Farmers Grain will need to complete the enclosed *No Exposure Certification for Exclusion from UPDES Storm Water Permitting* form within 30 days of receipt of this renewal permit. If site conditions change so the no exposure certification no longer applies, the individual UPDES permit shall be reopened and modified under Section IV.S of the permit to include specific storm water requirements.

BIOMONITORING REQUIREMENTS: A nationwide effort to control toxic discharges where effluent toxicity is an existing or potential concern is regulated in accordance with the *State of Utah Permitting and Enforcement Guidance Document for Whole Effluent Toxicity Control (biomonitoring).* Authority to require effluent biomonitoring is provided in *Permit Conditions, UAC R317-8-4.2, Permit Provisions, UAC R317-8-5.3* and *Water Quality Standards, UAC R317-2-5* and *R317 -2-7.2*.

The permittee is a minor industrial discharger, in which toxicity has been absent for the past 8 years. As such, the permittee has requested a reduction in the whole effluent toxicity (WET) biomonitoring testing from quarterly to once annually for each species. Based upon these facts and Best Professional Judgment (BPJ) of the permitting authority, the permittee will be required to conduct semi-annual acute WET testing with alternating species. In the absence of a waste load analysis with numerical limits, the Acute WET test passing requirement of *LC50 > 25% Effluent* is based upon BPJ.

The permit will also contain a toxicity limitation re-opener provision. This provision allows for modification of the permit to include WET limitations and/or increased WET monitoring, should additional information indicate the presence of toxicity in the discharge. The permit will contain the standard requirements for accelerated testing upon failure of an Acute WET test as well as provisions for a Preliminary Toxicity Investigation and/or a Toxicity Reduction Evaluation as appropriate.

SUMMARY OF EFFLUENT LIMITS:

Table 1: Effluent Limitations a/				
Parameter, Units	30-Day Average	7-Day Average	Daily Minimum	Daily Maximum
Flow, GPM	NA	NA	NA	NA
pH S.U.	NA	NA	6.5	9.0
BOD_5, mg/L	25	35	NA	NA
TSS, mg/L	25	35	NA	NA
Trichloroethene, ug/L	30	NA	NA	NA
1,1-dichloroethene, ug/L	3.2	NA	NA	NA
1,1-dichloroethane	NA	NA	NA	NA
1,2-dichloroethene, ug/L	NA	NA	NA	NA
WET Testing	NA	NA	NA	Pass LC50 > 25% Effluent

a/ Monitoring for the purpose of this permit shall only be completed during non-runoff conditions. The purpose of the permit is to determine compliance of the ground water draining to surface drains, with the required effluent limitations. If during any monthly reporting period non-runoff conditions do not occur (continual runoff in the month), samples shall still be taken, but the total suspended solids limitation shall not apply and it shall be noted on the discharge monitoring report that runoff occurred throughout the month. It is the responsibility of the permittee to document that runoff had occurred throughout the month and to provide such documentation if required by the Executive Secretary or EPA.

SELF MONITORING AND REPORTING REQUIREMENTS: Discharge monitoring reports shall be submitted on a monthly basis. The following effluent monitoring requirements are based upon BPJ and have not changed significantly from the previous permit.

Table 3: Self-Monitoring and Reporting Requirements *a/*			
Parameter	Sampling Frequency	Sample Type	Units
Flow, GPM	Monthly	Immediate	GPM
pH S.U.	Monthly	Grab	S.U.
BOD_5, mg/L	Monthly	Grab	mg/L
TSS, mg/L */b*	Monthly	Grab	mg/L
Trichloroethene, ug/L	Monthly	Grab	ug/L
1,1-dichloroethene, ug/L	Monthly	Grab	ug/L
1,1-dichloroethane	Monthly	Grab	ug/L
1,2-dichloroethene, ug/L	Monthly	Grab	ug/L
Acute W.E.T. *c/*	Annually	Grab	Pass/Fail

a/ See Definitions, *Part I.A* for definition of terms.
b/ Applicable only during non-runoff conditions. If need to take sample during runoff conditions note on bottom of discharge monitoring report and enter NA for total suspended solids concentration.
c/ Acute WET testing shall occur on a semi-annual basis for both species. These tests shall be alternated over two six month periods.

PRETREATMENT REQUIREMENTS:
It is not contemplated that effluent will be discharged to the sanitary sewer. Any wastewater discharged to a public sanitary sewer is subject to Federal, State and local pretreatment regulations. Pursuant to Section 307 of the Clean Water Act, Farmers Grain shall comply with all applicable Federal pretreatment regulations promulgated in 40 CFR Section 403, the State pretreatment requirements found in *UAC R317-8-8*, and any specific local discharge limitations developed by the wastewater treatment plant accepting any contribution from Farmers Grain.

PERMIT DURATION: This permit shall be effective for a period of five years.

Drafted By:
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Utah Division of Water Quality
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Updated May 11, 2009

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